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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,851	07/30/2003	Tae-eun Kwon	1293.1901	6163

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EXAMINER

LEE, GUIYOUNG

ART UNIT	PAPER NUMBER
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2875

DATE MAILED: 02/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/629,851

Applicant(s)

KWON, TAE-EUN

Examiner

Guiyoung Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-15, 17-30, 32 and 34-39 is/are rejected.
- 7) ☒ Claim(s) 5, 16, 31 and 33 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 0404.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “angle formed by the reflective slopes” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 6-9, 11-14, 17-20, 22-28, 32 and 34-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsutsumi et al. (US 5,850,585).

Re claim 1, 7, 12, 18, 23-24, 27, 34 and 37: Tsutsumi discloses the claimed image forming apparatus (Fig. 1) comprising an eraser (8) which initializes a surface potential of a photoreceptor medium, and an auxiliary transfer device (5 and 6), which facilitates transfer of a toner image by radiating light on a surface of the photoreceptor medium, wherein the eraser (8) and the auxiliary transfer device comprise: a light source (24 and 25 in Fig. 2) to emit light; and an optical guide (27) on a side of the apparatus having the light source, which guides the light emitted from the light source (24 and 25) and incident therethrough in a lengthwise direction, makes uniform the light in an effective width range of the lengthwise direction and outputs the uniform light, wherein the optical guide (27) comprises: a first surface (the bottom surface of the light guide 27) to receive the incident light, comprising a plurality of reflective slopes (28) to reflect and make uniform the incident light, each having a stripe shape and forming a varying angle with respect to the lengthwise direction, and a second surface (the top surface of the light guide 27) which is opposite to the first surface and is an output surface from which the light reflected from the reflective slopes is output.

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Re claims 2-3, 13-14: Tsutsumi discloses that the interval between the reflective slopes gradually become smaller when moving further from a side of the guide onto which the light is incident (See the interval between the slopes 28 in Fig.2).

Re claims 6, 8-9, 11, 17, 19-20, 22, 28 and 32: Tsutsumi discloses that the groove has a triangular structure and a stripe shape, and the plurality of slopes is parallel to one another and have a uniform width.

Re claims 25-26, 35-36 and 38-39: Tsutsumi discloses a LED as a light source disposed between the first and second surfaces (See 25 in Fig. 2). Tsutsumi, further, discloses a cover to cover the light source (21 in Fig. 2).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4, 10, 15, 21 and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsutsumi as applied to claims 1, 7, 12, 18, 23, 34 and 37 above, and further in view of Suzuki (US 6,088,074).

Re claims 4 and 15: Tsutsumi does not disclose various angles formed by the reflective slopes with respect to the lengthwise direction. However, Suzuki teaches that the angle formed by the reflective slopes with respect to the lengthwise direction gradually becomes larger when moving further from a side of the guide onto which the light is incident (col. 6, line 26-32 and 12 in Fig. 6). It would have been obvious to one having ordinary skill in the art at the time of the

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invention to modify Tsusumi's optical guide having various angle to increase when moving further from a side of the guide onto which the light is incident, as taught by Suzuki, in order to provide uniform distribution of illumination.

Re claims 10, 21 and 29-30: Suzuki teaches that a slope which connects the reflective slopes to a portion of the first surface along the lengthwise direction and having a width greater than a width of the reflective slopes, which forms an incline with respect to the lengthwise direction (See 5 in fig. 6), and a reflectivity of the optical guide decrease with decreasing distance from a source of the incident light.

Allowable Subject Matter

7. Claims 5, 16, 31 and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guiyoung Lee whose telephone number is 571-272-2374. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571-272-2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LGY



Sandra O'Shea
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